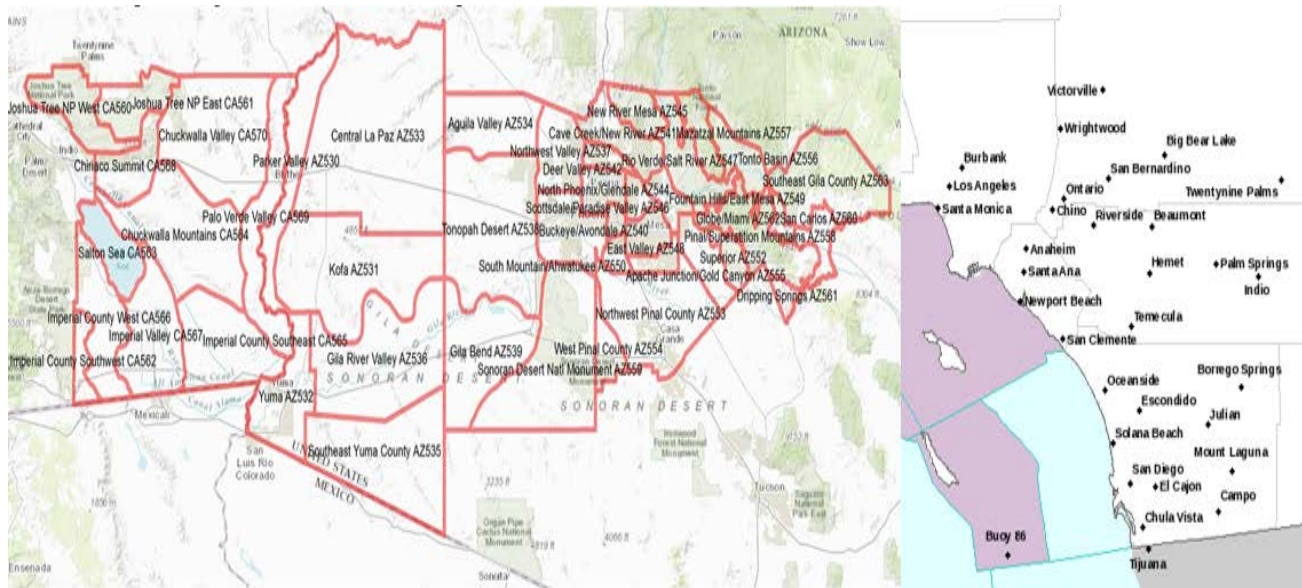


## Appendix A

### Public Notification That a Potential Event Was Occurring (40 CFR §50.14(c)(1))

**FIGURE A-1**  
**NATIONAL WEATHER SERVICE PUBLIC ZONES**



**Fig A-1:** Illustrates the public zones serviced by the National Weather Service Office in Phoenix and San Diego. Imperial County, including southeast sections of Riverside County are part of the reporting public zone areas from the Phoenix office

The Appendix Supplemental contains all the pertinent National Weather Service notices issued by either the San Diego or Phoenix office in date and time order.

## FIGURE A-2

### AREA FORECAST DISCUSSION NATIONAL WEATHER SERVICE SAN DIEGO

1/9/2018

IEM :: AFD from NWS SGX

r  
466  
FXUS66 KSGX 070353  
AFDSGX

AREA FORECAST DISCUSSION  
NATIONAL WEATHER SERVICE SAN DIEGO CA  
855 PM PDT MON JUL 6 2015

.SYNOPSIS... LOW PRESSURE MOVING SLOWLY INLAND OVER CENTRAL CALIFORNIA THROUGH THURSDAY WILL CONTINUE TO DEEPEN THE MARINE LAYER...BRINGING COOLER DAYS AND GUSTY WESTERLY WINDS WELL INLAND INTO THE DESERTS. THE DEEP MARINE LAYER MAY PRODUCE PATCHY DRIZZLE AT TIMES...ESPECIALLY LATE NIGHTS AND MORNINGS AS THE CLOUD LAYER THICKENS. CLEARING MAY BE LIMITED SOME DAYS WEST OF THE MOUNTAINS. THE SUBTROPICAL HIGH WILL BEGIN TO BUILD BACK TO THE WEST BY THE WEEKEND...WHICH WILL DECREASE THE MARINE LAYER AND BRING WARMER DAYS INTO NEXT WEEK.

&&

.DISCUSSION...FOR EXTREME SOUTHWESTERN CALIFORNIA INCLUDING ORANGE... SAN DIEGO...WESTERN RIVERSIDE AND SOUTHWESTERN SAN BERNARDINO COUNTIES...

THUNDERSTORMS ERUPTED OVER THE SAN BERNARDINO MOUNTAINS AND HIGH DESERTS AGAIN THIS AFTERNOON. A FEM STORMS NEAR THE LAKE FIRE BROUGHT HEAVY RAIN WILL RESULTED IN A MUD/ASH/DEBRIS FLOW THAT BRIEFLY BRIEFLY CLOSED HIGHWAY 38. ELSEWHERE...STREET FLOODING WAS REPORTED IN LUCERNE VALLEY BETWEEN 330-430 PM WHEN A STRONG THUNDERSTORM ROLLED ACROSS THAT AREA. THE STORMS DISSIPATED WITH THE SETTING SUN AND SKIES WILL BE MOSTLY CLEAR OVER THE MOUNTAINS AND DESERTS TONIGHT.

THE MONSOONAL FLOW PATTERN IS WINDING DOWN AND THE TREND IS TOWARD A MUCH DRIER AIRMASS THE REST OF THE WEEK. HOWEVER...THE MONSOON MOISTURE HANGS ON ACROSS THE UPPER DESERTS TUESDAY AFTERNOON WHERE THE 102 MB SHOWS PWATS AROUND 1.00". AFTERNOON CU WILL PROBABLY FORM IN THIS AREA ALONG THE CONVERGENCE BOUNDARY SET BY THE AFTERNOON ONSHORE WINDS FUELING THROUGH THE CAJON PASS...MOST LIKELY FROM THE JOHNSON VALLEY NORTHWARD TO BARSTON/DAGGETT.

OVERALL THOUGH...THE WEATHER THE NEXT SEVERAL DAYS WILL BE DOMINATED BY DRY SOUTHWEST FLOW AHEAD OF A LOW PRESSURE OFF THE CA COAST THAT WILL SLOWLY MOVE INLAND OVER CENTRAL CA BY THU. FALLING/HEIGHTS AND THICKNESS WILL MAINTAIN MODERATE TO STRONG ONSHORE FLOW FOR THIS TIME OF YEAR AND FURTHER COOLING THROUGH THU...ESPECIALLY INLAND WHERE MAX TEMPS WILL BE AROUND TEN DEGREES F BELOW AVERAGE. THE MARINE LAYER WILL REMAIN UNSEASONABLY THICK...RESULTING IN MORE OF A JUNE GLOOM SITUATION WITH PATCHY DRIZZLE POSSIBLE AT TIMES AND LIMITED CLEARING WEST OF THE MOUNTAINS.

GRADUALLY WARMER THIS COMING WEEKEND INTO EARLY NEXT WEEK AS THE MARINE LAYER DECREASES UNDER BUILDING HIGH PRESSURE ALOFT. THE UPPER HIGH IS FORECAST TO RETROGRADE FROM THE GULF COAST REGION FRI...TO THE SOUTHERN ROCKIES MON. THIS WILL SLOWLY BRING BACK MONSOONAL MOISTURE BY TUE AS OUR MID-LEVEL WINDS SWITCH FROM SOUTHWEST TO SOUTH.

&&

.AVIATION... 070400Z...COAST/VALLEYS...BKN/OVC STRATUS ALREADY COVERS THE COASTAL AREAS AND WILL SPREAD THROUGH THE VALLEYS BY 07Z. BASES WILL BE 1100-1700 FT MSL WITH TOPS TO 2500-3000 FT MSL AND HIGHER TERRAIN OBSCURED. BELOW THE CLOUD BASES...MOST VIS WILL BE 6+ MILES EXCEPT LOCALLY 3-5 MILES IN DRIZZLE/MIST. SKIES WILL CLEAR VERY SLOWLY TUESDAY...WITH BKN/OVC STRATUS WITHIN 5-10 MILES OF THE SAN DIEGO COUNTY COAST POSSIBLY LINGERING THROUGH TUE AFTERNOON. BKN/OVC STRATUS WILL BE WIDESPREAD AGAIN TUE NIGHT.

MTNS/DESERTS...UNRESTRICTED VIS WILL CONTINUE THROUGH TUE NIGHT. MOSTLY CLEAR SKIES WILL PREVAIL THROUGH TUE NIGHT EXCEPT FOR SCT CU/TCU OVER THE MTNS/HIGH DESERTS TUE AFTERNOON. LOCAL WEST SFC WINDS 15-25 KT GUSTS TO 35 KT WILL OCCUR THIS EVENING AND AGAIN TUE LATE AFTERNOON/EVENING THROUGH SAN GORGONIO PASS AND ON DESERT MTN SLOPES.

&&

.MARINE... 900 PM...NORTHWEST WINDS COULD GUST 20 TO 25 KT IN THE OUTER WATERS TUE EVENING. A SMALL CRAFT ADVISORY MAY BE NEEDED.

<https://mesonet.agron.iastate.edu/wx/afos/p.php?pil=AFDSGX&e=201507070355>

2/3

**Fig A-2:** The Area Forecast Discussion, issued 755 PM PST (855 PM PDT) on July 6, 2015 identifies a low-pressure system moving slowly inland and the dry southwest flow ahead of the low-pressure. Source: AFD from NWS SGX; Iowa Environmental Mesonet; <https://mesonet.agron.iastate.edu/wx/afos/p.php?pil=AFDSGX&e=201507070355>

### FIGURE A-3 AREA FORECAST DISCUSSION NATIONAL WEATHER SERVICE SAN DIEGO

1/16/2018

IEM :: AFD from NWS SGX

110  
FXUS66 KSGX 070951  
AFDSGX

AREA FORECAST DISCUSSION  
NATIONAL WEATHER SERVICE SAN DIEGO CA  
251 AM PDT TUE JUL 7 2015

.SYNOPSIS...  
A SLOW MOVING LOW PRESSURE SYSTEM OFF THE CALIFORNIA COAST WILL MOVE INLAND THROUGH CENTRAL AND SOUTHERN CALIFORNIA THURSDAY BRINGING STRONGER ONSHORE FLOW AND DRY SOUTHWEST FLOW ALOFT WITH INLAND COOLING AND GUSTY WEST WINDS IN THE MOUNTAINS AND DESERTS AT TIMES. THE MARINE LAYER WILL DEEPEN WITH AREAS OF NIGHT AND MORNING LOW CLOUDS WITH PATCHY FOG AND DRIZZLE EXTENDING ONTO THE LOWER MOUNTAIN SLOPES. THERE WILL CONTINUE TO BE SLOW OR LIMITED CLEARING NEAR SOME BEACHES EACH AFTERNOON. THE TROUGH OF LOW PRESSURE WILL WEAKEN FOR FRIDAY THROUGH EARLY NEXT WEEK WITH WARMING TO NEAR SEASONAL LEVELS FOR EARLY NEXT WEEK ALONG WITH A GRADUALLY SHALLOWER MARINE LAYER.

##

.DISCUSSION...FOR EXTREME SOUTHWESTERN CALIFORNIA INCLUDING ORANGE...  
SAN DIEGO...WESTERN RIVERSIDE AND SOUTHWESTERN SAN BERNARDINO COUNTIES...

A SLOW MOVING LOW PRESSURE SYSTEM OFF THE CALIFORNIA COAST WILL MOVE INLAND THROUGH CENTRAL AND SOUTHERN CALIFORNIA THURSDAY. THIS WILL BRING STRONGER ONSHORE FLOW AND DRY SOUTHWEST FLOW ALOFT WITH INLAND COOLING...GUSTY WEST WINDS IN THE MOUNTAINS AND DESERTS AT TIMES...AND A DEEPER MARINE LAYER. THIS IS AN ANOMALOUSLY DEEP LOW PRESSURE SYSTEM FOR SOUTHERN CALIFORNIA FOR JULY WITH 500 MB HEIGHTS OVER SOUTHERN CALIFORNIA ON THURSDAY AROUND FOUR STANDARD DEVIATIONS BELOW AVERAGE.

THE MARINE LAYER WILL SLOWLY DEEPEN FROM AROUND 3000 FEET THIS MORNING TO AROUND 4500 FEET ON THURSDAY AND FRIDAY MORNINGS. NIGHT AND MORNING COASTAL LOW CLOUDS WITH PATCHY FOG AND DRIZZLE WILL EXTEND ONTO THE LOWER COASTAL MOUNTAIN SLOPES. THERE WILL CONTINUE TO BE SLOW OR LITTLE CLEARING NEAR SOME BEACHES EACH AFTERNOON.

INLAND HIGH TEMPERATURES WILL CONTINUE TO COOL INTO THURSDAY WITH THURSDAY HIGH TEMPERATURES FOR SOME MOUNTAIN AND INLAND VALLEY AREAS 15 TO 20 DEGREES BELOW AVERAGE.

FOR FRIDAY THROUGH EARLY NEXT WEEK...THE TROUGH OF LOW PRESSURE WILL WEAKEN WITH WARMING TO NEAR SEASONAL LEVELS FOR EARLY NEXT WEEK ALONG WITH A GRADUALLY SHALLOWER MARINE LAYER.

##

.AVIATION...  
070900Z...COAST/VALLEYS...STRATUS...WITH BASES FROM 1500-2300 FT MSL AND TOPS TO 2600 FT MSL...HAS DEVELOPED OVER THE COAST...AND WILL CONTINUE TO PUSH INTO THE VALLEYS OVERNIGHT. AN AIRCRAFT SOUNDING FROM KSN AT 070600Z SHOWED A MARINE LAYER INVERSION OF 9 DEG C. VIS OF 2-4 SM BR WILL BE POSSIBLE WHERE STRATUS NEARS HIGHER TERRAIN. -DZ IS POSSIBLE NEAR SUNRISE. LOW CLOUDS WILL SLOWLY ERODE OVER THE VALLEYS LATE THIS MORNING...BUT WILL LIKELY LINGER OVER THE COAST THROUGHOUT THE DAY. LOW CLOUDS WILL PUSH BACK INTO THE VALLEYS AGAIN THIS EVENING...WITH SLIGHTLY HIGHER TOPS AND BASES. FORECASTER CONFIDENCE IN STRATUS TIMING AND DEPTH IS MODERATE TO HIGH.

MTNS/DESERTS...FEW/SCT CUMULUS CLOUDS OVER THE MTNS/HIGH DESERTS IN THE AFTN. LOCAL WEST SFC WINDS 15-25 KT GUSTS TO 35 KT LATE AFTN/EVENING THROUGH SAN GORGONIO PASS AND ON DESERT MTN SLOPES. OTHERWISE...MOSTLY CLEAR WITH UNRESTRICTED VIS THROUGH WED MORNING.

##

.MARINE...  
200 AM...NO HAZARDOUS MARINE WEATHER IS EXPECTED THROUGH SATURDAY.

##

.SKYMARN...

<https://mesonet.agron.iastate.edu/wx/afos/p.php?pil=AFDSGX&e=201507070951>

2/3

**Fig A-3:** The Area Forecast Discussion, issued at 151 AM PST (251 AM PDT) on July 7, 2015 identifies the slow moving low-pressure off the California coast moving inland. Source: AFD from NWS SGX; Iowa Environmental Mesonet;

<https://mesonet.agron.iastate.edu/wx/afos/p.php?pil=AFDSGX&e=201507070951>

## FIGURE A-4 AREA FORECAST DISCUSSION NATIONAL WEATHER SERVICE PHOENIX

1/16/2018

IEM :: AFD from NWS PSR

630  
 FXUS65 KPSR 071048  
 AFDPSR

**AREA FORECAST DISCUSSION  
 NATIONAL WEATHER SERVICE PHOENIX AZ  
 348 AM MST TUE JUL 7 2015**

**.SYNOPSIS...**  
 TODAY WILL BE THE LAST OPPORTUNITY FOR THUNDERSTORMS ON THE LOWER ELEVATIONS FOR THE NEXT SEVERAL DAYS AS DRIER SOUTHWESTERLY FLOW DEVELOPS ACROSS THE REGION. RAINFALL CHANCES WILL PRIMARILY BE RELEGATED TO THE MOUNTAINS OF NORTHERN AND EASTERN ARIZONA, DESPITE THE LACK OF STORM ACTIVITY...TEMPERATURES WILL REMAIN SLIGHTLY BELOW NORMAL. DURING THIS UPCOMING WEEKEND...HIGH PRESSURE WILL BEGIN TO STRENGTHEN LEADING TO WARMER TEMPERATURES AND POSSIBLY AN INCREASE IN MOISTURE.

**.DISCUSSION...**  
 TODAY AND WEDNESDAY...  
 MOISTURE CONTINUES TO BE SLOWER TO DECLINE THAN PREVIOUSLY ANTICIPATED AND THUS REINTRODUCED SLIGHT CHANCE POPS ON THE LOWER DESERTS TODAY EAST OF THE LOWER COLORADO RIVER VALLEY. ANOTHER FACTOR IS THE POTENTIAL FOR SUBTLE PERTURBATIONS WITHIN THE SOUTHWESTERLY FLOW TO POSSIBLY ENHANCE THE CAPE THAT IS LEFT, THERE MAY ALSO BE A LITTLE BIT OF DIFFLUENCE OVER OUR AREA BUT NOT NEARLY TO THE SAME DEGREE AS IS OVER VEF CMA. HOWEVER...WOULD ANTICIPATE LESS STORM COVERAGE THAN WAS SEEN ON MONDAY AS THERE WILL BE SOME FURTHER DRYING. THE SOUTHWESTERLY FLOW OVER OUR AREA IS PART OF A REX PATTERN OVER THE NORTHEAST PACIFIC WITH AN UPPER LOW...CENTERED OFF THE NORTHERN CALIFORNIA COAST...TRAPPED UNDER NARROW RIDGE WITH THE MAIN ANTICYCLONIC CENTER NEAR THE B.C. CANADA COAST. MODELS CONTINUE TO DEPICT THE LOW ADVANCING SLOWLY EASTWARD LEADING TO AN EASTWARD RETREAT OF DEEPER MOISTURE WITH STORM CHANCES CONFINED TO EASTERN ARIZONA WITH JUST OUR HIGHER TERRAIN ZONE HAVING ANY POPS. OF NOTE IS THAT STRONGER FLOW ALOFT ALSO MOVES OVER THE DESERT SOUTHWEST WHICH COULD BE A PLAYER FOR AREAS THAT HAVE THE MOISTURE.

THURSDAY AND FRIDAY...  
 AS THE UPPER LOW CENTER MOVES OVER SRN CALIFORNIA THURSDAY...A DEEPER SOUTHERLY FLOW TEMPORARILY INCREASES MOISTURE OVER SOUTHEAST ARIZONA...WITH A SHARP DROP OFF IN MOISTURE OVER CENTRAL ARIZONA. DURING THE DAY THURSDAY...THE LOW SWINGS A VORT LOBE THROUGH SOUTHEAST CALIFORNIA AND WESTERN ARIZONA...BRUSHING EASTERN ARIZONA. ASSOCIATED DYNAMICAL FORCING LOOKS TO BE LESS THAN ROBUST OVER THE AREAS WHERE THE MOISTURE WILL BE WITH THE JET AXIS REMAINING TO THE WEST. HOWEVER...NUDGED UP THE POPS OVER ZONE 24 AS EVEN SUBTLE INFLUENCES CAN MAKE A DIFFERENCE THIS TIME OF YEAR. THE LOW QUICKLY SHIFTS OFF AND WEAKENS BUT IS REPLACED BY RENEWED TROUGHING WHICH KEEPS A JET IN PLACE OVER SOUTHEAST CALIFORNIA AND NORTHERN ARIZONA FRIDAY. VERTICAL WIND SHEAR PEAKS ON THURSDAY AND FRIDAY SO ANY STORMS THAT CAN SURVIVE COULD BE POTENT. ANTICIPATE TEMPS TO BE BELOW NORMAL WITH THIS THE PASSAGE OF THE LOW.

SATURDAY THROUGH MONDAY...  
 MODELS CONTINUE TO DEPICT A WESTWARD EXPANSION OF THE HIGH CENTERED TO OUR EAST WITH MOISTURE IMPROVING OVER THE LOWER DESERTS. THE GFS CONTINUES TO BE MORE GENEROUS WITH THE MOIST ADVECTION THAN THE ECMWF. THIS IS LIKELY DUE IN PART TO HOW THE GFS HAS MORE OF A SOUTHERLY COMPONENT TO THE FLOW WITH DEEPER COASTAL TROUGHING. ACCORDINGLY IT ALSO SHOWS STRONGER WINDS ALOFT OVER OUR FORECAST AREA. IN ADDITION...IT SHIFTS THE TROUGH NORTHEASTWARD SUNDAY WITH A JET MOVING THROUGH CALIFORNIA AND INTO THE GREAT BASIN WITH THE ENTRANCE REGION OVER OUR FORECAST AREA FOR A BRIEF TIME. TAKING CONSERVATIVE APPROACH DUE TO INHERENT UNCERTAINTIES...GOING WITH ONLY SLIGHT CHANCE POPS OVER THE SOUTH-CENTRAL DESERTS SUNDAY WHICH IS AN WESTWARD EXPANSION COMPARED TO PRECEDING DAYS. THERE IS AN EVEN GREATER DIFFERENCE BETWEEN GFS AND ECMWF IN MOISTURE FOR MONDAY AS THE ECMWF HOLDS ON TO THE WEST COAST TROUGHING AND NUDGES IT FURTHER EAST FOR MORE DRYING. THE GFS MEANWHILE EXPANDS THE HIGH FURTHER WEST FOR A BIT OF ADDITIONAL WARMING ALOFT. BOTH OF THOSE SCENARIOS...ESPECIALLY ECMWF...COULD HAVE A NEGATIVE IMPACT ON STORM POTENTIAL AND SO PULLED BACK POPS FROM THE LOWER ELEVATIONS OF SOUTH-CENTRAL ARIZONA MONDAY.

**.AVIATION...**

<https://mesonet.agron.iastate.edu/wx/afos/p.php?pil=AFDPSR&e=201507071048>

2/3

**Fig A-4:** The Area Forecast Discussion, issued at 248 AM PST (348 AM PDT) on July 7, 2015 identifies the continuance of moisture and the chances of reintroduced POPS on the lower deserts east of the Colorado River Valley. Source: AFD from NWS SGX; Iowa Environmental Mesonet;

<https://mesonet.agron.iastate.edu/wx/afos/p.php?pil=AFDPSR&e=201507071048>

## FIGURE A-5

### AREA FORECAST DISCUSSION NATIONAL WEATHER SERVICE SAN DIEGO – PAGE 1

1/9/2018

IEM :: AFD from NWS SGX

F  
 981  
 FXUS66 KSGX 071630  
 AFDSGX

AREA FORECAST DISCUSSION  
 NATIONAL WEATHER SERVICE SAN DIEGO CA  
 930 AM PDT TUE JUL 7 2015

.SYNOPSIS...  
 A LOW PRESSURE SYSTEM OFF OF THE CALIFORNIA COAST WILL SLOWLY MOVE  
 INLAND THROUGH THURSDAY. THIS FEATURE WILL HELP TO INCREASE ONSHORE  
 FLOW...CREATE COOLER CONDITIONS...AND PRODUCE A DEEP MARINE LAYER  
 WEST OF THE MOUNTAINS. IN ADDITION...CLEARING WILL BE LIMITED AT THE  
 BEACHES AND ALONG THE COAST THROUGH THE END OF THE WORK WEEK WITH  
 DRIZZLE POSSIBLE DURING THE EARLY MORNINGS. AS THE SYSTEM MOVES EAST  
 OF THE AREA FRIDAY THE WEEKEND...EXPECT SLIGHTLY WARMER WEATHER AND  
 A SHALLOWER MARINE LAYER.

&&

.DISCUSSION...FOR EXTREME SOUTHWESTERN CALIFORNIA INCLUDING ORANGE...  
 SAN DIEGO...WESTERN RIVERSIDE AND SOUTHWESTERN SAN BERNARDINO  
 COUNTIES...

.SHORT TERM...  
 THE 12Z NEX SOUNDING...ALONG WITH METAR OBSERVATIONS AND PILOT  
 REPORTS...INDICATED A DEEP MARINE WITH BASES NEAR 1000 FT MSL AND  
 TOPS BETWEEN 2500-2800 FT MSL. A 9 DEGREE C TEMPERATURE INVERSION  
 WAS ALSO NOTED...TYPICALLY STRONG ENOUGH TO KEEP LOW CLOUDS FROM  
 SCATTERING OUT ALONG THE COAST DURING THE AFTERNOON. THE DRIZZLE  
 THIS MORNING WAS PATCHY WEST OF THE MOUNTAINS WITH A HANDFUL OF  
 STATIONS UP PICKING UP 0.01" OF ACCUMULATION. ONSHORE SURFACE  
 PRESSURE GRADIENTS REMAIN MODERATELY STRONG. FOR EXAMPLE...SAN TO  
 KIPL WAS OBSERVED AT 47.2 MB.

WATER VAPOR IMAGERY AT 830 AM PDT SHOWED A DEEP CLOSED LOW PRESSURE  
 SYSTEM SPINNING 400 MILES WEST OF SAN FRANCISCO. THIS FEATURE WILL  
 CONTINUE TO INFLUENCE THE WEATHER PATTERN ACROSS SOUTHERN CALIFORNIA  
 THROUGH THURSDAY BY DEEPENING THE MARINE LAYER...INCREASING ONSHORE  
 FLOW...AND CREATING COOLER CONDITIONS OVER THE REGION. AFTERNOON  
 CLEARING MAY BE LIMITED ALONG THE BEACHES/COASTAL ZONES AND EARLY  
 MORNING DRIZZLE WILL AGAIN BE POSSIBLE. WINDS IN THE MOUNTAINS AND  
 DESERTS WILL BECOME GUSTY AT TIMES...REACHING 30 TO 40+ MPH IN THE  
 WIND PRONE AREAS BETWEEN PASSES...SUCH AS THE SAN GORGONIO  
 PASS...AND ON THE DESERT SLOPES. LOWERING 500 MB HEIGHTS AND  
 INCREASED ONSHORE FLOW WILL KEEP CONDITIONS 10 TO 20 DEGREES BELOW  
 NORMAL FOR THIS TIME OF YEAR ACROSS THE INLAND EMPIRE...INLAND  
 VALLEYS...AND MOUNTAINS.

&&

.LONG TERM...  
 FOR FRIDAY THROUGH THIS WEEKEND...THE LOW PRESSURE SYSTEM IS PROGGED  
 TO MOVE EAST OF THE AREA WITH A WEAK TROUGHING PATTERN FILLING IN  
 BEHIND. THIS WOULD BRING SLIGHT WARMING WEST OF THE MOUNTAINS...A  
 SHALLOWER MARINE LAYER...AND BETTER AFTERNOON CLEARING OF LOW CLOUDS  
 ALONG THE COAST. LONG RANGE MODELS DIVERGE EARLY TO MID NEXT WEEK AS  
 THE 06Z GFS INDICATES A RIDGE BUILDING OVER THE FOUR CORNERS REGION  
 WHICH WOULD BRING WARMER WEATHER AND THE RETURN TO THE MOIST  
 MONSOONAL FLOW. HOWEVER...THE 00Z ECMWF INDICATES ANOTHER TROUGH  
 BUILDING ALONG THE WEST COAST...WHICH WOULD KEEP CONDITIONS DRY AND  
 PROLONG THE COOL CLOUDY CONDITIONS WEST OF THE MOUNTAINS. FOR THE  
 MOMENT...WILL RETAIN A BLEND OF THE TWO...UNTIL THE MODELS CAN WORK  
 OUT THEIR DIFFERENCES.

&&

.AVIATION...  
 071518Z...COAST/VALLEYS...OVC-BKN STRATUS FILLING THE COAST AND  
 VALLEYS...WITH BASES GENERALLY 1200-1600 FT MSL AND TOPS AROUND 2700-  
 3500 FT MSL...WILL SLOWLY CLEAR OUT OF THE VALLEYS THROUGH 1900  
 UTC...WITH BKN-OVC STRATUS 1600-2500 FT MSL LINGERING WITHIN 10 SM  
 OF THE SAN DIEGO COUNTY COAST THROUGH 08/0200 UTC...INCLUDING KCRQ  
 AND KSAH. BETTER CHANCE OF THE ORANGE COUNTY COAST  
 CLEARING...PROBABLY BY 2200 UTC. 9 DEG C MARINE LAYER INVERSION THIS  
 MORNING. 08/0200-1500 UTC...OVC STRATUS FILLING IN OVER THE COAST  
 AND VALLEYS AGAIN...WITH SIMILAR BASES AND TOPS TO THIS MORNING.  
 FORECAST CONFIDENCE MODERATE-TO-HIGH.

MTNS/DESERTS...MOSTLY SKC WITH UNRESTRICTED VIS THROUGH WEDNESDAY

<https://mesonet.agron.iastate.edu/wx/afos/p.php?pi=AFDSGX&e=201507071630>

2/3

## FIGURE A-5

### AREA FORECAST DISCUSSION NATIONAL WEATHER SERVICE SAN DIEGO – PAGE 2

1/9/2018

IEM :: AFD from NWS SGX

MORNING. AFTER 08/0000 UTC...WEST WINDS 15-25 KT WITH GUSTS 30-35 KT OVER MTH RIDGES...THROUGH/BELOW PASSES/CANYONS...ALONG DESERT SLOPES AND INTO ADJACENT DESERT AREAS WILL CREATE MOD-STG UDDFS/LLWS OVER AND EAST OF THE MTNS.

&amp;&amp;

.MARINE...

818 AM...NO HAZARDOUS MARINE WEATHER IS EXPECTED THROUGH SATURDAY.

&amp;&amp;

.SKYWARN...

SKYWARN ACTIVATION IS NOT REQUESTED. HOWEVER WEATHER SPOTTERS ARE ENCOURAGED TO REPORT SIGNIFICANT WEATHER CONDITIONS.

&amp;&amp;

.SGX WATCHES/WARNINGS/ADVISORIES...

CA...NONE.

PZ...NONE.

&amp;&amp;

\$\$

PUBLIC...JT/PG

AVIATION/MARINE...HARRISON

**IOWA STATE  
UNIVERSITY**

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Department of Agronomy


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3/3

**Fig A-5:** The Area Forecast Discussion, issued at 830 AM PST (930 AM PDT) on July 7, 2015 identified the low-pressure off San Francisco with increasing onshore through Thursday and resulting west winds. Source: AFD from NWS SGX; Iowa Environmental Mesonet; <https://mesonet.agron.iastate.edu/wx/afos/p.php?pil=AFDSGX&e=201507071630>



## FIGURE A-6 AREA FORECAST DISCUSSION NATIONAL WEATHER SERVICE SAN DIEGO

3/9/2017

IEM :: AFD from NWS SGX

r  
 142  
 FXUS66 KSGK 080403  
 AFDSGX  
  
**AREA FORECAST DISCUSSION**  
 NATIONAL WEATHER SERVICE SAN DIEGO CA  
 900 PM PDT TUE JUL 7 2015  
  
 .SYNOPSIS...  
 AN UNSEASONABLY DEEP TROUGH OF LOW PRESSURE OFF OF THE CENTRAL CALIFORNIA COAST WILL MOVE INLAND THROUGH THURSDAY. THE TROUGH WILL BRING COOLER WEATHER AND AN UNUSUALLY DEEP MARINE LAYER FOR EARLY JULY...DEEP ENOUGH FOR POCKETS OF LIGHT RAIN AND DRIZZLE WEST OF THE MOUNTAINS THE NEXT TWO NIGHTS. **IT WILL BE WINDY IN THE MOUNTAINS AND DESERTS EACH AFTERNOON.** THE TROUGH WILL MOVE EAST OF THE AREA THIS WEEKEND WITH WARMER WEATHER AND THE RETURN OF WEAK MONSOONAL FLOW EARLY NEXT WEEK.  
  
 &&  
  
 .DISCUSSION...FOR EXTREME SOUTHWESTERN CALIFORNIA INCLUDING ORANGE... SAN DIEGO...WESTERN RIVERSIDE AND SOUTHWESTERN SAN BERNARDINO COUNTIES...  
  
 AN ANOMALOUSLY DEEP 5720M UPPER LOW 400 MILES WEST OF SFO THIS EVENING WILL BRING UNSEASONABLY COOL WEATHER TO SO-CAL THE NEXT TWO DAYS. TEMPERATURES WILL BE 5-15 DEGREES BELOW AVERAGE ON WEDNESDAY AND FROM 10-20 BELOW AVERAGE THURSDAY WHEN 500 MB HEIGHT ANOMALIES REACH 3-4 STANDARD DEVIATIONS BELOW NORMAL. RECORD LOW MAXIMUM TEMPERATURES WILL LIKELY BE BROKEN AT SEVERAL VALLEY...MOUNTAIN AND DESERT LOCALES.  
  
 THE MARINE LAYER WILL REMAIN UNUSUALLY DEEP FOR JULY...APPROACHING 4000 FEET THURSDAY. AREAS OF LIGHT RAIN AND DRIZZLE ARE AGAIN LIKELY WEST OF THE MOUNTAINS EACH NIGHT AND MORNING THROUGH FRIDAY. A SHORTWAVE ROUNDING THE BASE OF THE TROUGH ON THURSDAY MAY VERY WELL ENHANCE THE PRECIP POTENTIAL ACROSS SOUTHERN CALIFORNIA THURSDAY. CLEARING ON WEDNESDAY WILL BE SLOW AND SOMEWHAT LIMITED AT THE BEACHES. ON THURSDAY THERE WILL BE COOLING ALOFT BEHIND THE SHORTWAVE WITH A 3C TEMPERATURE DECREASE AT THE INVERSION HEIGHT. THIS COULD PROMOTE BETTER MIXING IF NOT FOR THE UNUSUALLY DEEP MARINE LAYER THAT WILL BE IN PLACE.  
  
**IT WILL BE WINDY IN THE MOUNTAINS AND DESERTS EACH AFTERNOON AND EVENING THROUGH FRIDAY WITH DOUBLE DIGIT ONSHORE PRESSURE GRADIENTS TO THE DESERTS AND 20-25KT 850 MB WINDS. WIND GUSTS IN THE MTHS AND DESERTS WILL REACH 30 TO 40 MPH IN THE WIND PRONE AREAS LIKE THE SAN GORGONIO PASS AND ON THE DESERT SLOPES WITH A FEW GUSTS ABOVE 50 MPH.**  
  
 SATURDAY THROUGH MONDAY...THE UPPER TROUGH SLOWLY DRIFTS EAST OF THE AREA THROUGH THE PERIOD WITH INCREASING HEIGHTS...GRADUAL WARMING AND A SHALLOWER MARINE LAYER. HIGH PRESSURE BUILDING IN FROM THE SOUTHEAST WILL BRING WEAK MONSOONAL FLOW BACK INTO THE SOUTHWEST EARLY NEXT WEEK.  
  
 &&  
  
 .AVIATION... 080400Z...COAST/VALLEYS...BKN/OVC STRATUS WILL AGAIN SPREAD THROUGH THE VALLEYS AND TO THE LOWER COASTAL SLOPES BY 08Z WITH BASES MOSTLY 1300-2000 FT MSL WITH TOPS TO 3000-3500 FT MSL. HIGHER TERRAIN WILL BE OBSCURED. AREAS OF VIS 3-5 MI IN MIST/DRIZZLE WILL OCCUR MAINLY 12Z-18Z WED. CLEARING WILL BE SLOW WED...GENERALLY 16-19Z IN THE VALLEYS AND 19-22Z IN COASTAL AREAS WITH SOME AREAS NEAR THE COAST REMAINING BKN/OVC THROUGH THE AFTERNOON. KSAH/KCRQ WILL LIKELY ONLY BE SCT FOR A SHORT TIME. STRATUS WILL SPREAD INLAND AGAIN EARLY WED EVENING WITH SLIGHTLY HIGHER BASES AND TOPS.  
  
 MTHS/DESERTS...MOSTLY CLEAR WITH UNRESTRICTED VIS WILL PREVAIL THROUGH WED NIGHT. AREAS OF SURFACE WINDS FROM THE WEST 15-25 KT GUSTS 35 KT WILL OCCUR THROUGH AND EAST OF SAN GORGONIO PASS AND THE DESERT MOUNTAIN SLOPES THROUGH 12Z WED...THEN AGAIN AFTER 22Z WED THROUGH WED NIGHT.  
  
 &&  
  
 .MARINE... 900 PM...NO HAZARDOUS MARINE WEATHER IS EXPECTED THROUGH SUNDAY.

<https://mesonet.agron.iastate.edu/wx/afos/p.php?pil=AFDSGX&e=201507080400>

2/3

**Fig A-6:** The Area Forecast Discussion, issued 800 PM PST (900 PM PDT) on July 7, 2015 identified an unseasonably deep trough of low-pressure off the Central California coast moving inland bringing windy condition to the mountains and deserts. Source: AFD from NWS SGX; Iowa Environmental Mesonet:

<https://mesonet.agron.iastate.edu/wx/afos/p.php?pil=AFDSGX&e=201507080400>

## FIGURE A-7 AREA FORECAST DISCUSSION NATIONAL WEATHER SERVICE SAN DIEGO

3/9/2017

IEM :: AFD from NWS SGX

F  
 271  
 FXUS66 KSGX 081037  
 AFDSGX

AREA FORECAST DISCUSSION  
 NATIONAL WEATHER SERVICE SAN DIEGO CA  
 337 AM PDT WED JUL 8 2015

.SYNOPSIS...  
 AN UNSEASONABLY DEEP TROUGH OF LOW PRESSURE OFF THE CENTRAL CALIFORNIA COAST WILL MOVE INLAND THROUGH THURSDAY. THE TROUGH WILL BRING COOL WEATHER AND AN UNUSUALLY DEEP MARINE LAYER FOR EARLY JULY...DEEP ENOUGH FOR POCKETS OF LIGHT RAIN AND DRIZZLE WEST OF THE MOUNTAINS DURING THE NEXT TWO LATE NIGHTS AND MORNINGS. IT WILL ALSO BE WINDY IN THE MOUNTAINS AND DESERTS EACH AFTERNOON. THE TROUGH WILL MOVE EAST OF THE AREA THIS WEEKEND...WITH WARMER WEATHER AND THE RETURN OF WEAK MONSOONAL FLOW EARLY NEXT WEEK.

&&

.DISCUSSION...FOR EXTREME SOUTHWESTERN CALIFORNIA INCLUDING ORANGE... SAN DIEGO...WESTERN RIVERSIDE AND SOUTHWESTERN SAN BERNARDINO COUNTIES...

A SMALL BUT POTENT UPPER LOW PRESSURE WAS LOCATED JUST OFF THE COAST FROM MONTEREY CALIFORNIA EARLY THIS MORNING. THIS FEATURE WILL GENERALLY MOVE EAST THROUGH THURSDAY AND ACROSS THE MIDDLE OF THE STATE. THIS WILL INCREASE AND DEEPEN THE MARINE LAYER ACROSS SOCAL THROUGH WEDNESDAY AND POSSIBLY INTO THURSDAY. THE LOW IS VERY STRONG FOR THIS TIME OF THE YEAR BUT SENSIBLE WEATHER WILL LIKELY BE MINIMAL FOR SOCAL THEREFORE WE HAVE NOT INCLUDED ANY MEASURABLE RAIN AT THIS TIME. AREAS OF DRIZZLE AND LIGHT RAIN WILL BE POSSIBLE LATE NIGHT AND DURING THE MORNINGS THROUGH THURSDAY MORNING WEST OF THE MOUNTAINS. LOW CLOUDS WILL PUSH THROUGH THE VALLEYS AND BANK UP ALONG THE WESTERN SLOPES OF THE MOUNTAINS. TEMPERATURES WILL BE BELOW NORMAL IN MOST LOCATIONS.

THROUGH THURSDAY AS A RESULT OF THE LOW...WITH STRONG WINDS LIKELY THROUGH THE WEST TO EAST ORIENTED PASSES SUCH AS SAN GORGONIO AND THE I-8 PASS. GUSTS TO AROUND 60 MPH WILL BE LIKELY LATE THIS AFTERNOON AND INTO THE EVENING AND AGAIN THURSDAY AFTERNOON...THEREFORE HAVE ISSUED A WIND ADVISORY FOR THOSE LOCATIONS.

ONCE THE LOW PASSES JUST TO THE NORTH OF OUR REGION...FLOW WILL TURN MORE SOUTHWESTERLY THROUGH THIS WEEKEND...THEN FOR EARLY NEXT WEEK WE SHOULD SEE A RETURN TO SOUTH-SOUTHEASTERLY MONSOONAL RETURN FLOW. MOISTURE PARAMETERS APPEAR TO HEDGE UPWARD SUNDAY AFTERNOON THROUGH TUESDAY OR WEDNESDAY...HOWEVER IT DOESN'T APPEAR TO BE A STRONG RETURN AND JUST A GLANCING BLOW THEREFORE HAVE NOT ADDED ANY POPS AT THIS TIME BUT HAVE BUMPED THE CLOUD COVER UP A BIT. FLOW LOOKS TO TURN MORE SOUTHWESTERLY BY MID NEXT WEEK AND BRING AN END TO THE MONSOONAL RETURN FLOW.

&&

.AVIATION...  
 0830Z...COAST/VALLEYS...LOW CLOUDS...WITH BASES 1500-2700 MSL AND TOPS TO 3500 FT MSL...WILL CONTINUE TO FILL IN W OF THE MTHS THIS MORNING. -DZ IS POSSIBLE AROUND AND A FEW HOURS AFTER SUNRISE. RECENT AIRCRAFT SOUNDINGS SHOWED A 9 DEGREE C MARINE LAYER INVERSION. STRATUS WILL OBSCURE HIGHER TERRAIN AT TIMES. LOW CLOUDS WILL SLOWLY CLEAR OVER MOST VALLEY LOCATIONS LATE THIS MORNING...BUT WILL LIKELY LINGER ALONG THE COAST THROUGHOUT THE DAY. LOW CLOUDS WILL PUSH BACK INLAND AGAIN EARLY THIS EVENING...WITH SLIGHTLY HIGHER TOPS AND BASES. FORECASTER CONFIDENCE IN STRATUS FORECAST IS MODERATE.

MTHS/DESERTS...MOSTLY SKC WITH UNRESTRICTED VIS THROUGH THU MORNING. AREAS OF W SFC WINDS 15-25 KT GUSTS 35 KT THROUGH AND E OF SAN GORGONIO PASS AND DESERT MOUNTAIN SLOPES THROUGH EARLY THIS MORNING...THEN AGAIN THIS AFTN THROUGH TONIGHT.

&&

.MARINE...  
 230 AM...NO HAZARDOUS MARINE WEATHER IS EXPECTED THROUGH SUNDAY.

<https://mesonet.agron.iastate.edu/wx/afos/p.php?pil=AFDSGX&e=201507081037>

2/3

**Fig A-7:** The Area Forecast Discussion, issued 237 AM PST (337 AM PDT) on July 8, 2015 identified an unseasonably deep trough of low-pressure off the Central California coast moving inland bringing windy condition to the mountains and deserts. Source: AFD from NWS SGX; Iowa Environmental Mesonet:

<https://mesonet.agron.iastate.edu/wx/afos/p.php?pil=AFDSGX&e=201507081037>



## FIGURE A-8 URGENT WEATHER MESSAGE WIND ADVISORY SAN DIEGO

3/9/2017

IEM :: NPW from NWS SGX

### National Weather Service Raw Text Product

Displaying AFOS PIL: NPWSGX Received: 2015-07-08 10:54 UTC

← Previous in Time
Next in Time →

View All KSGX Products for 08 Jul 2015
Latest Product
View As Image

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r
743
MMUS76 KSGX 081054
NPWSGX

URGENT - WEATHER MESSAGE
NATIONAL WEATHER SERVICE SAN DIEGO CA
354 AM PDT WED JUL 8 2015

...STRONG WINDS LIKELY LATE TODAY AND AGAIN THURSDAY THROUGH THE
PASSES AND INTO THE DESERTS...

...STRONG ONSHORE FLOW WILL GENERATE STRONG AND GUSTY WINDS AT
TIMES.

CAZ062-065-082030-
/O.NEM.KSGX.WT.V.0023.150708T2100Z-150710T0600Z/
SAN DIEGO COUNTY DESERTS-SAN GORGONIO PASS NEAR BANNING-
354 AM PDT WED JUL 8 2015

...MIND ADVISORY IN EFFECT FROM 2 PM THIS AFTERNOON TO 11 PM PDT
THURSDAY...

THE NATIONAL WEATHER SERVICE IN SAN DIEGO HAS ISSUED A MIND
ADVISORY...WHICH IS IN EFFECT FROM 2 PM THIS AFTERNOON TO 11 PM
PDT THURSDAY.

* WINDS...WEST WINDS WITH GUSTS TO 60 MPH AT TIMES. STRONGEST
WINDS THIS AFTERNOON AND EVENING AND AGAIN THURSDAY AFTERNOON
AND EVENING.

* LOCATION...SAN GORGONIO PASS ALONG INTERSTATE 10 AND INTERSTATE
8 THROUGH THE SAN DIEGO COUNTY MOUNTAINS AND DESERTS.

* VISIBILITY...BLOWING DUST AND SAND COULD REDUCE VISIBILITY TO
ONLY A FEW MILES AT TIMES IN THE DESERTS.

* IMPACTS...HIGH PROFILE VEHICLES COULD HAVE DIFFICULTY NAVIGATING
ROADS WITH STRONG CROSS WINDS.

* OUTLOOK...STRONG WINDS WILL GRADUALLY SUBSIDE LATE THURSDAY
NIGHT INTO FRIDAY MORNING.

PRECAUTIONARY/PREPAREDNESS ACTIONS...

A MIND ADVISORY MEANS THAT WINDS OVER 50 MPH ARE EXPECTED. WINDS
THIS STRONG CAN MAKE DRIVING DIFFICULT...ESPECIALLY FOR HIGH
PROFILE VEHICLES. USE EXTRA CAUTION.

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JMB

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<https://mesonet.agron.iastate.edu/wx/afos/p.php?pil=NPWSGX&e=201507081054>

1/1

**Fig A-8:** The Urgent Weather Message, issued at 254 AM PST (354 AM PDT) on July 8, 2015 identified strong winds and strong onshore. Interstate 8 and blowing dust and sand are identified. Source: NPW from NWS SGX; Iowa Environmental Mesonet:  
<https://mesonet.agron.iastate.edu/wx/afos/p.php?pil=NPWSGX&e=201507081054>

**FIGURE A-9**  
**WIND ADVISORY FOR COACHELLA VALLEY**

## Coachella Valley under wind advisory Wednesday



Colin Atagi, The Desert Sun

6:48 a.m. PDT July 8, 2015



Buy Photo

(Photo: Colin Atagi/The Desert Sun)

Coachella Valley residents are waking up to breezy conditions that are expected to get worse Wednesday afternoon.

The National Weather Service has issued a wind advisory that's scheduled to kick in at about 2 p.m. for communities in the western portion of the valley. It's scheduled to end at 11 p.m. Thursday.

Gusts may reach 60 mph. They should be strongest in and near the San Geronio Pass, according to the Weather Service.

The agency is encouraging residents to prepare for limited visibility due to blowing sand and dust. Large vehicles, such as semi trucks, may also be at risk.

Winds will help lower temperatures in the area. A high of 103 degrees is expected Wednesday with a high of 100 degrees Thursday.

Read or Share this story: <http://desert.sn/1IJ8jrG>

**Fig A-9:** The Desert Sun published the National Weather Service wind advisory identifying gusts potentially as high as 60 mph. Source: The Desert Sun.

## FIGURE A-10

### URGENT WEATHER MESSAGE WIND ADVISORY PHOENIX

3/9/2017

IEM :: NPW from NWS PSR

#### National Weather Service Raw Text Product

Displaying AFOS PIL: NPWPSR Received: 2015-07-08 15:44 UTC

◀ Previous in Time

View All KPSR Products for 08 Jul 2015

Next in Time ▶

Latest Product

View As Image

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f
610
MMUS75 KPSR 081544
NPWPSR

URGENT - WEATHER MESSAGE
NATIONAL WEATHER SERVICE PHOENIX AZ
844 AM MST WED JUL 8 2015

CAZ033-090000-
/O.NEM.KPSR.WI.Y.0009.150708T2200Z-150709T1400Z/
IMPERIAL COUNTY-
INCLUDING THE CITIES OF...BRAMLEY...CALEXICO...EL CENTRO...
GLANDIS...IMPERIAL...THE SALTON SEA
844 AM MST WED JUL 8 2015

...WIND ADVISORY IN EFFECT FROM 3 PM THIS AFTERNOON TO 7 AM PDT
THURSDAY...

THE NATIONAL WEATHER SERVICE IN PHOENIX HAS ISSUED A WIND
ADVISORY...WHICH IS IN EFFECT FROM 3 PM THIS AFTERNOON TO 7 AM
PDT THURSDAY.

* AFFECTED AREA...FAR SOUTHWEST IMPERIAL COUNTY...INCLUDING
OCOTILLO...PORTIONS OF INTERSTATE 10 FROM NEAR DIXIELAND WEST
TOWARD SAN DIEGO COUNTY...AND SALTON CITY INCLUDING NEARBY PORTIONS
OF HIGHWAY 86.

* TIMING...FROM 3 PM THIS AFTERNOON TO 7 AM TOMORROW MORNING.

* WINDS...SUSTAINED WINDS FROM THE WEST OF 20 TO 30 MPH WITH GUSTS UP
TO 45 MPH...LOCALLY HIGHER NEAR TERRAIN-CHANNELED AREAS.

* IMPACTS...DIFFICULT DRIVING CONDITIONS ESPECIALLY ALONG NORTH-SOUTH
ROADS. BLOWING DUST MAY ALSO DEVELOP...REDUCING VISIBILITY AT
TIMES.

PRECAUTIONARY/PREPAREDNESS ACTIONS...

A WIND ADVISORY MEANS THAT SUSTAINED WIND SPEEDS OF BETWEEN
30 AND 40 MPH ARE EXPECTED...OR WIND GUSTS OF BETWEEN 40 AND
50 MPH. WINDS THIS STRONG CAN MAKE DRIVING DIFFICULT...ESPECIALLY
FOR HIGH PROFILE VEHICLES. IN ADDITION...STRONG WINDS OVER DESERT
AREAS COULD RESULT IN BRIEFLY LOWERED VISIBILITIES TO WELL UNDER
A MILE AT TIMES IN BLOWING DUST OR BLOWING SAND. USE EXTRA
CAUTION.

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<https://mesonet.agron.iastate.edu/wx/afos/p.php?pil=NPWPSR&e=201507081544>

1/2

**Fig A-10:** The Urgent Weather Message, issued 744 AM PST (844 AM MST) on July 8, 2015 identified sustained winds from the west of 20 to 30 mph with gusts up to 45 mph potentially affecting Imperial County. Source: AFD from NWS SGX; Iowa Environmental Mesonet:

<https://mesonet.agron.iastate.edu/wx/afos/p.php?pil=AFDPSR&e=201507081544>

## FIGURE A-11

### AREA FORECAST DISCUSSION NATIONAL WEATHER SERVICE SAN DIEGO

1/9/2018

IEM :: AFD from NWS SGX

f  
879  
FXUS66 KSGX 081610  
AFDSGX

AREA FORECAST DISCUSSION  
NATIONAL WEATHER SERVICE SAN DIEGO CA  
910 AM PDT WED JUL 8 2015

SYNOPSIS  
A DEEP TROUGH OF LOW PRESSURE OFF THE CENTRAL CALIFORNIA COAST WILL  
MOVE INLAND THROUGH THURSDAY. THE TROUGH WILL BRING COOL WEATHER AND  
A DEEP MARINE LAYER WHICH COULD BRING DRIZZLE TO AREAS WEST OF THE  
MOUNTAINS DURING THE LATE NIGHT AND MORNING HOURS. IT WILL ALSO  
PRODUCE WINDY CONDITIONS IN THE MOUNTAINS AND DESERTS...STRONGEST  
DURING THE EVENING THROUGH EARLY MORNING HOURS. UPPER LEVEL HIGH  
PRESSURE WILL BUILD OVER THE AREA STARTING FRIDAY...WITH A WARMING  
TREND FOR FRIDAY THROUGH EARLY NEXT WEEK...ALONG WITH NIGHT AND  
MORNING CLOUDS AND FOG FOR THE COAST AND PORTIONS OF THE VALLEYS.

&&

.DISCUSSION...FOR EXTREME SOUTHWESTERN CALIFORNIA INCLUDING ORANGE...  
SAN DIEGO...WESTERN RIVERSIDE AND SOUTHWESTERN SAN BERNARDINO  
COUNTIES...

DEEP MARINE LAYER IN PLACE THIS MORNING...AS VISIBLE SATELLITE SHOWS  
STRATUS THROUGH THE COAST...VALLEYS AND INTO SOME OF THE MOUNTAIN  
PASSES. THE 12Z MIRAPAR SOUNDING AND AIRCRAFT SOUNDINGS FROM AROUND  
THE AREA SHOW A MARINE LAYER DEPTH OF 3000 TO 4000 FEET ABOVE MEAN  
SEA LEVEL. HOWEVER...THE CLOUD LAYER IS NOT AS THICK AS IT HAS BEEN  
THE PAST FEW DAYS...SO THERE HAVE NOT BEEN AS MANY REPORTS OF  
DRIZZLE THIS MORNING...ALTHOUGH A FEW SPOTS IN THE VALLEYS REPORTED  
0.01 INCHES OF RAINFALL ACCUMULATION. THE MARINE LAYER INVERSION IS  
WEAKER THAN IT HAS BEEN...AT ONLY AROUND 5 DEG C. THE THINNER CLOUD  
LAYER AND THE WEAKER INVERSION MAY RESULT IN SLIGHTLY BETTER  
CLEARING AT THE COAST THAN WE HAVE SEEN THE PAST FEW DAYS. ON THE  
OTHER HAND...WIND OBSERVATIONS AT THE COAST SHOW THAT A MEAK EDDY  
HAS DEVELOPED...AND THE LOCAL MRF STILL DOES NOT INDICATE THAT THERE  
WILL BE MUCH CLEARING AT THE COAST TODAY. FOR NOW...WILL STICK WITH  
THE FORECAST OF THE BEACHES AND IMMEDIATE COASTAL AREAS REMAINING  
MOSTLY CLOUDY TODAY.

WATER VAPOR SATELLITE SHOWS A CLOSED LOW OFF THE CENTRAL CALIFORNIA  
COAST. THIS LOW WILL MOVE INLAND TODAY THROUGH THURSDAY...RESULTING  
IN CONTINUED COOLING AND DEEPENING OF THE MARINE LAYER. TEMPERATURES  
TODAY LOOK TO BE 10-20 DEGREES BELOW NORMAL IN THE VALLEYS AND  
MOUNTAINS...AND SEVERAL DEGREES BELOW NORMAL ELSEWHERE. WRF CROSS-  
SECTIONS INDICATE THAT THE MARINE LAYER WILL DEEPEN TO NEAR 5000  
FEET TONIGHT...WITH STRATUS ONCE AGAIN FILLING IN OVER THE COAST AND  
VALLEYS...AND ALSO THE LOWER COASTAL SLOPES AND MOUNTAIN PASSES.  
WITH THE DEEP MARINE LAYER AND SOME NEARBY LIFT PROVIDED BY THE  
TROUGH...EXPECT AN INCREASE IN MARINE LAYER DRIZZLE FOR LATE TONIGHT  
THROUGH THURSDAY MORNING. SOME OF THE MODELS INDICATE THIS  
POSSIBILITY...WITH SOME BLIPS OF 0.01 INCHES OF QPF SHOWING UP IN  
THE COASTAL AND VALLEY AREAS.

THE TROUGH IS ALSO RESULTING IN STRONGER ONSHORE PRESSURE  
GRADIENTS...WITH SAN DIEGO TO LAS VEGAS GRADIENTS SHOWING 7.1 MB  
CURRENTLY...WHEREAS THEY WERE 5.1 MB 24 HOURS AGO. AS A  
RESULT...THERE WERE 54 MPH WIND GUSTS AT EDOM HILL AND WHITEMATER IN  
THE NORTHERN COACHELLA VALLEY OVERNIGHT. THE GRADIENTS SHOULD  
STRENGTHEN FURTHER TONIGHT...AT AROUND 10-13 MB FROM SAN DIEGO TO  
LAS VEGAS...DEPENDING ON WHICH MODEL YOU LOOK AT. CAHSAC WRF ALSO  
SHOWS SOME PRETTY GOOD WINDS FOR THE LOWER DESERTS...PARTICULARLY  
THROUGH AND BELOW THE MOUNTAIN PASSES...FOR TONIGHT INTO THURSDAY  
MORNING. A WIND ADVISORY FOR THE SAN GORGONIO/BANNING PASS AREA AND  
THE SAN DIEGO COUNTY DESERTS GOES INTO EFFECT AT 2 PM THIS  
AFTERNOON. GUSTS OF 50-55 MPH ARE LIKELY...WITH ISOLATED 60 MPH  
GUSTS. WITH THE TROUGH AND STRONG ONSHORE FLOW...MORE COOLING WILL  
OCCUR TOMORROW.

A WARMING TREND WILL START ON FRIDAY...AS THE TROUGH WEAKENS AND  
MOVES TO THE NORTH...AND RIDGING TO THE EAST BUILDS OVER THE AREA.  
THE RIDGE WILL CONTINUE TO BUILD THROUGH NEXT MONDAY...WITH  
TEMPERATURES RISING EACH DAY...EVENTUALLY REACHING BACK TO NEAR  
NORMAL BY MONDAY. THE MARINE LAYER WILL ALSO BECOME SHALLOWER...AND  
WE MAY SEE BETTER AFTERNOON CLEARING...ALTHOUGH WITH THE WARMING  
ALOFT THE MARINE LAYER INVERSION MAY BECOME STRONG ENOUGH TO KEEP  
THE BEACHES CLOUDY DURING SOME OF THE DAYS.

<https://mesonet.agron.iastate.edu/wx/afos/p.php?pil=AFDSGX&e=201507081610>

2/3

**Fig A-11:** The Area Forecast Discussion, issued 810 AM PST (910 AM PDT) on July 8, 2015 identified the trough of low-pressure off the Central California coast resulting in stronger onshore pressure gradients and gusty westerly winds affecting the mountains and deserts. Source: NPW from NWS SGX; Iowa Environmental Mesonet:  
<https://mesonet.agron.iastate.edu/wx/afos/p.php?pil=AFDSGX&e=201507081610>

## FIGURE A-12

### URGENT WEATHER MESSAGE WIND ADVISORY SAN DIEGO

3/9/2017

IEM :: NPW from NWS SGX

#### National Weather Service Raw Text Product

Displaying AFOS PIL: **NPWSGX** Received: 2015-07-08 19:39 UTC

◀ Previous in Time

View All KSGX Products for 08 Jul 2015

Next in Time ▶

Latest Product

View As Image

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r
390
MMUS76 KSGX 081939
NPWSGX

URGENT - WEATHER MESSAGE
NATIONAL WEATHER SERVICE SAN DIEGO CA
1239 PM PDT WED JUL 8 2015

...STRONG WINDS LIKELY THROUGH THURSDAY EVENING FOR THE MOUNTAIN
PASSES AND INTO THE LOWER DESERTS...

.STRONG ONSHORE FLOW WILL GENERATE STRONG AND GUSTY WINDS...MAINLY
DURING THE EVENING AND EARLY MORNING HOURS...FOR THE NORTHERN
COACHELLA VALLEY NEAR SAN GORGONIO PASS...AND THE WIND PRONE
LOCATIONS IN THE SAN DIEGO COUNTY DESERTS...SUCH AS INTERSTATE 8.
WINDS WILL WEAKEN OVERNIGHT THURSDAY.

CAZ062-065-090508-
/O.EXT.KSGX.WI.Y.0023.150708T2000Z-150710T0600Z/
SAN DIEGO COUNTY DESERTS-SAN GORGONIO PASS NEAR BANNING-
1239 PM PDT WED JUL 8 2015

...WIND ADVISORY NOW IN EFFECT UNTIL 11 PM PDT THURSDAY...

* WINDS...WEST WINDS 20 TO 30 MPH WITH GUSTS TO 50 MPH AND
ISOLATED GUSTS TO 60 MPH AT TIMES.

* TIMING...WINDS INCREASING THIS AFTERNOON...WITH STRONGEST WINDS
OCCURRING THIS EVENING THROUGH EARLY THURSDAY MORNING...AND ALSO
THURSDAY EVENING.

* LOCATION...THROUGH AND BELOW THE SAN GORGONIO PASS ALONG AND
NORTH OF INTERSTATE 10. WIND-PRONE AREAS OF THE SAN DIEGO COUNTY
DESERTS...INCLUDING INTERSTATE 8.

* VISIBILITY...BLOWING DUST AND SAND COULD REDUCE VISIBILITY TO 1
MILE OR LESS AT TIMES IN THE DESERTS.

* IMPACTS...HIGH PROFILE VEHICLES COULD HAVE DIFFICULTY
NAVIGATING ROADS WITH STRONG CROSS WINDS.

* OUTLOOK...STRONG WINDS WILL GRADUALLY SUBSIDE LATE THURSDAY
NIGHT INTO FRIDAY MORNING.

PRECAUTIONARY/PREPAREDNESS ACTIONS...

A WIND ADVISORY MEANS THAT WIND GUSTS OF 50 MPH ARE EXPECTED.
WINDS THIS STRONG CAN MAKE DRIVING DIFFICULT...ESPECIALLY FOR HIGH
PROFILE VEHICLES. USE EXTRA CAUTION.

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HARRISON

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<https://mesonet.agron.iastate.edu/wx/afos/p.php?pil=NPWSGX&e=201507081939>

1/1

**Fig A-12:** The Urgent Weather Message, issued 1139 PM PST (1239 PM PDT) on July 8, 2015 identified strong and gusty winds within the San Diego deserts such as Interstate 8. Source: NPW from NWS SGX; Iowa Environmental Mesonet:

<https://mesonet.agron.iastate.edu/wx/afos/p.php?pil=NPWSGX&e=201507081939>

## FIGURE A-13

### URGENT WEATHER MESSAGE WIND ADVISORY PHOENIX

3/9/2017

IEM :: NPW from NWS PSR

#### National Weather Service Raw Text Product

Displaying AFOS PIL: **NPWPSR** Received: 2015-07-08 22:33 UTC

◀ Previous in Time

View All KPSR Products for 08 Jul 2015

Next in Time ▶

Latest Product

View As Image

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r
983
MMUS75 KPSR 082233
NPWPSR

URGENT - WEATHER MESSAGE
NATIONAL WEATHER SERVICE PHOENIX AZ
333 PM MST WED JUL 8 2015

CAZ033-091400-
/O.CON.KPSR.VT.Y.0009.000000T0000Z-150709T1400Z/
IMPERIAL COUNTY-
INCLUDING THE CITIES OF...BRANLEY...CALEXICO...EL CENTRO...
GLAYTS...IMPERIAL...THE SALTON SEA
333 PM MST WED JUL 8 2015

...WIND ADVISORY REMAINS IN EFFECT UNTIL 7 AM PDT THURSDAY...

* AFFECTED AREA...FAR SOUTHWEST IMPERIAL COUNTY...INCLUDING
OCOTILLO...PORTIONS OF INTERSTATE 8 FROM NEAR DIXIELAND WEST
TOWARD SAN DIEGO COUNTY...AND SALTON CITY INCLUDING NEARBY
PORTIONS OF HIGHWAY 86.

* TIMING...FROM 3 PM THIS AFTERNOON TO 7 AM TOMORROW MORNING.

* WINDS...SUSTAINED WINDS FROM THE WEST OF 20 TO 30 MPH WITH
GUSTS UP TO 45 MPH...LOCALLY HIGHER NEAR TERRAIN-CHANNELED
AREAS.

* IMPACTS...DIFFICULT DRIVING CONDITIONS ESPECIALLY ALONG NORTH-
SOUTH ROADS. BLOWING DUST MAY ALSO DEVELOP...REDUCING
VISIBILITY AT TIMES.

PRECAUTIONARY/PREPAREDNESS ACTIONS...

A WIND ADVISORY MEANS THAT SUSTAINED WIND SPEEDS OF BETWEEN
30 AND 40 MPH ARE EXPECTED...OR WIND GUSTS OF BETWEEN 40 AND
50 MPH. WINDS THIS STRONG CAN MAKE DRIVING DIFFICULT...ESPECIALLY
FOR HIGH PROFILE VEHICLES. IN ADDITION...STRONG WINDS OVER DESERT
AREAS COULD RESULT IN BRIEFLY LOWERED VISIBILITIES TO WELL UNDER
A MILE AT TIMES IN BLOWING DUST OR BLOWING SAND. USE EXTRA
CAUTION.

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Enter search term

<https://mesonet.agron.iastate.edu/wx/afos/p.php?pil=NPWPSR&e=201507082233>

1/1

**Fig A-13:** The Urgent Weather Message, issued 233 PM PST (333 PM MST) on July 8, 2015 identified the potential for gusty winds and blowing dust in Imperial County. Source: NPW from NWS PSR; Iowa Environmental Mesonet:

<https://mesonet.agron.iastate.edu/wx/afos/p.php?pil=NPWPSR&e=201507082233>



## FIGURE A-14

### AREA FORECAST DISCUSSION NATIONAL WEATHER SERVICE PHOENIX

1/16/2018

IEM :: AFD from NWS PSR

F  
 134  
 FXUS65 KPSP 090436  
 AFDPSR

**AREA FORECAST DISCUSSION**  
**NATIONAL WEATHER SERVICE PHOENIX AZ**  
**935 PM MST WED JUL 8 2015**

.SYNOPSIS...  
 THUNDERSTORM CHANCES WILL BE SIGNIFICANTLY LOWER THAN USUAL FOR THE MIDDLE OF THE MONSOON SEASON...AND PRIMARILY RELEGATED TO THE MOUNTAINS OF NORTHERN AND EASTERN ARIZONA THE NEXT SEVERAL DAYS. DESPITE THE LACK OF STORM ACTIVITY...TEMPERATURES WILL REMAIN NEAR TO SLIGHTLY BELOW NORMAL. THIS WEEKEND AND EARLY NEXT WEEK...HIGH PRESSURE WILL STRENGTHEN AGAIN LEADING TO WARMER TEMPERATURES. THERE MAY ALSO BE AN INCREASE IN STORM ACTIVITY...MAINLY OVER EASTERN ARIZONA.

&&

.DISCUSSION...  
 MINIMAL RADAR ACTIVITY OCCURRED ACROSS OUR FORECAST AREA THIS EVENING...WITH ONLY A FEW SHORT-LIVED THUNDERSHOWERS THAT SKIRTED THE SOUTHERN GILA COUNTY HIGHER TERRAIN A FEW HOURS AGO. 00Z/03Z PSR BALLOONS INDICATED THE DEEP MIXING PROFILE TODAY AND A THINNING PMAT SFC DOWN AROUND THE 1 INCH MARK...ALONG WITH DOMINANT WEST TO SOUTHWEST WINDS THROUGH THE MAJORITY OF THE PROFILE, THE UNSEASONABLY STRONG WESTERLY WINDS ALSO SHUNTED THE STORM ACTIVITY OFF WELL TO OUR EAST AND NORTH...KEEPING AREAS OF NM...UT...AND CO BUSY WITH STORMS THIS EVENING.

WHILE THE RADAR SCOPES WERE GENERALLY QUIET TONIGHT...STRONG WESTERLY GAP/SUNDOWNER WINDS CONTINUE ALONG THE PENINSULAR RANGES BETWEEN SAN DIEGO AND IMPERIAL COUNTIES. LATEST OBS OUT OF EL CENTRO HAS HAD WIND GUSTS IN THE 30S WITH SOME VISIBILITY REDUCTION IN BLOWING DUST. EVENING CROSS SECTION MODEL FCSTS INDICATE THE STABLE LAYER DEFLECTION AND RESULTING GUSTY SFC WINDS INTO THE IMPERIAL VALLEY...AND EVEN A BIT FURTHER INTO THE FAR EASTERN REACHES OF IMPERIAL COUNTY...WILL CONTINUE FOR THE NEXT SEVERAL HOURS. WIND ADVISORY CONTINUES FOR THE I-8 GORGE INTO IN-KO-PAH THROUGH THURSDAY AM.

GRID UPDATES TONIGHT INCLUDED EXPANDING THE COVERAGE OF PATCHY BLOWING DUST/STORM WINDING THROUGH EL CENTRO/IMPERIAL OVERNIGHT. THE GFS-GEH-NAM 00Z RUNS INDICATE SOME POTENTIAL PRECIP ACTIVITY BUBBLING UP OVER GILA AND FAR EASTERN PINAL COUNTIES TOWARDS SUNRISE THURSDAY...POSSIBLY SIMILAR TO THE THIN BAND OF ACTIVITY OBSERVED ACROSS THE AREA THIS MORNING. EVENING HI-RES FCSTS ARE NOT AS ENTHUSED...BUT THE HRRR SAT FCST PRODUCT DOES INDICATE SOME COOLER CLOUD TOPS AND MAYBE A SHOWER OR TWO ALONG THE RIM AND EASTERN AZ HIGHER TERRAIN TOWARDS THURSDAY MORNING. KEPT SLIGHT CHANCES FOR THUNDER OVERNIGHT FOR THOSE AREAS WHILE MOSTLY ZEROING OUT POPS FOR THE LOWER DESERT ELEVATIONS.

&&

.PREVIOUS DISCUSSION...  
 A SUBTLE SHORTWAVE WITHIN THE STRONG SOUTHWEST FLOW ALOFT AND ASSOCIATED MOISTURE AXIS HAS LIFTED NORTHEAST WITH LARGER SCALE SUBSIDENCE AND ADDITIONAL DRYING WORKING INTO THE MAJORITY OF THE FORECAST AREA THIS AFTERNOON. OBJECTIVE ANALYSIS INDICATES INSTABILITY SOLELY RELEGATED TO THE NORTHERN AND EASTERN PORTIONS OF THE STATE...WITH LITTLE TO NO OPPORTUNITY FOR ADDITIONAL AFTERNOON CONVECTION (SANS SRN GILA COUNTY). THEREFORE...ATTENTION TURNS TO IMPACTS FROM GUSTY WINDS INCLUDING THE STRONG LIKELIHOOD FOR AN IMPRESSIVE AND UNSEASONABLE SUNDOWNER EVENT THROUGH SWRN IMPERIAL COUNTY. THE AREA WEST OF EL CENTRO THROUGH THE IN-KO-PAH GORGE ALONG I-8 WILL LIKELY EXPERIENCE PERIODIC GUSTS AROUND 45 MPH CREATING HAZARDOUS DRIVING CONDITIONS FOR HIGH PROFILE VEHICLES...JUSTIFYING A WIND ADVISORY FOR JUST THE SMALL SOUTHWEST SEGMENT OF IMPERIAL COUNTY. WHILE STRONGER WINDS MAY BEGIN AS EARLY AS LATE THIS AFTERNOON...TRADITIONALLY THE TIMING OF STRONGEST WINDS SUGGESTS AROUND AND THE FEW HOURS AFTER SUNSET WILL EXPERIENCE THE STRONGEST GUSTS AND LARGEST IMPACTS.

THURSDAY AND FRIDAY...  
 THE UPPER LOW BECOMES CENTERED OVER CALIFORNIA THURSDAY WITH AN ANOMALOUS JET STREAK AND VORT MAX RAPIDLY SWINGING THROUGH THE MOHAVE DESERT REGION DURING THE AFTERNOON AND EVENING. IN FACT...12Z KTMK AND KNOX SOUNDINGS SAMPLED H2 WESTERLY WINDS NEAR

<https://mesonet.agron.iastate.edu/wx/afos/p.php?pil=AFDPSR&e=201507090435>

2/4

**Fig A-14:** The Area Forecast Discussion, issued 835 PM PST (935 PM MST) on July 8, 2015 identified strong westerly winds into the Imperial County. Source: AFD from NWS SGX; Iowa Environmental Mesonet:

<https://mesonet.agron.iastate.edu/wx/afos/p.php?pil=AFDSGX&e=201507090435>

## FIGURE A-15 URGENT WEATHER MESSAGE WIND ADVISORY SAN DIEGO

1/9/2018

IEM :: NPW from NWS SGX

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r
898
MMUS76 KSGX 090441
NPWSGX

URGENT - WEATHER MESSAGE
NATIONAL WEATHER SERVICE SAN DIEGO CA
941 PM PDT WED JUL 8 2015

...LOCALLY STRONG WINDS THROUGH THURSDAY EVENING FOR THE MOUNTAIN
PASSES AND INTO THE DESERT SLOPES...

,AN UPPER LEVEL TROUGH WILL PRODUCE STRONG ONSHORE FLOW AND GENERATE
LOCALLY STRONG AND GUSTY WINDS...ESPECIALLY DURING THE EVENING
AND EARLY MORNING HOURS. THE AREAS AFFECTED INCLUDE THE NORTHERN
COACHELLA VALLEY NEAR SAN GORGONIO PASS...AND THE WIND PRONE
LOCATIONS IN THE SAN DIEGO COUNTY DESERTS...SUCH AS INTERSTATE 8.
WINDS WILL WEAKEN LATE THURSDAY NIGHT.

CAZ062-065-091245-
/O.CON.KSGX.WI.Y.0023.000000T0000Z-150710T0600Z/
SAN DIEGO COUNTY DESERTS-SAN GORGONIO PASS NEAR BANNING-
941 PM PDT WED JUL 8 2015

...WIND ADVISORY REMAINS IN EFFECT UNTIL 11 PM PDT THURSDAY...

* WINDS...WEST WINDS 20 TO 30 MPH WITH GUSTS TO 50 MPH AND
ISOLATED GUSTS TO 60 MPH AT TIMES.

* TIMING...STRONGEST WINDS OCCURRING THIS EVENING THROUGH EARLY
THURSDAY MORNING...AND AGAIN THURSDAY EVENING.

* LOCATION...THROUGH AND BELOW THE SAN GORGONIO PASS ALONG AND
NORTH OF INTERSTATE 10. WIND-PRONE AREAS OF THE SAN DIEGO
COUNTY DESERTS...INCLUDING INTERSTATE 8.

* VISIBILITY...BLOWING DUST AND SAND COULD REDUCE VISIBILITY TO 1
MILE OR LESS AT TIMES ON THE LOWER DESERT SLOPES AND FLOORS.

* IMPACTS...HIGH PROFILE VEHICLES COULD HAVE DIFFICULTY
NAVIGATING ROADS WITH STRONG CROSS WINDS.

* OUTLOOK...STRONG WINDS WILL GRADUALLY SUBSIDE LATE THURSDAY
NIGHT INTO FRIDAY MORNING.

PRECAUTIONARY/PREPAREDNESS ACTIONS...

A WIND ADVISORY MEANS THAT WIND GUSTS OF 50 MPH ARE EXPECTED.
WINDS THIS STRONG CAN MAKE DRIVING DIFFICULT...ESPECIALLY FOR
HIGH PROFILE VEHICLES. USE EXTRA CAUTION.

&&

$$
TARDY

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**IOWA STATE  
UNIVERSITY**

College of Ag  
Department of Agronomy

Department of Agronomy  
716 Farm House Ln  
Ames, IA 50011  
akrherz@iastate.edu  
515-294-5978 phone



<https://mesonet.agron.iastate.edu/wx/afos/p.php?pil=NPWSGX&e=201507090441>

2/2

**Fig A-15:** The Urgent Weather Message, issued 841 PM PST (941 PM PDT) on July 8, 2015 identified the strong onshore with locally strong and gusty winds along the San Diego deserts. Source: NPW from NWS SGX; Iowa Environmental Mesonet:  
<https://mesonet.agron.iastate.edu/wx/afos/p.php?pil=NPWSGX&e=201507090441>

**FIGURE A-16  
AIR QUALITY INDEX**

| <b>Air Quality Index<br/>Levels of Health<br/>Concern</b> | <b>Numerical<br/>Value</b> | <b>Meaning</b>  |
|---|----------------------------|---|
| <b>Good</b>   | <b>0 to 50</b>             | <b>Air quality is considered satisfactory, and air pollution poses little or no risk.</b>   |
| <b>Moderate</b>   | <b>51 to 100</b>           | <b>Air quality is acceptable; however, for some pollutants there may be a moderate health concern for a very small number of people who are unusually sensitive to air pollution.</b> |
| <b>Unhealthy for Sensitive Groups</b>                     | <b>101 to 150</b>          | <b>Members of sensitive groups may experience health effects. The general public is not likely to be affected.</b>  |
| <b>Unhealthy</b>  | <b>151 to 200</b>          | <b>Everyone may begin to experience health effects; members of sensitive groups may experience more serious health effects.</b>   |
| <b>Very Unhealthy</b>                                     | <b>201 to 300</b>          | <b>Health alert: everyone may experience more serious health effects.</b>   |
| <b>Hazardous</b>  | <b>301 to 500</b>          | <b>Health warnings of emergency conditions. The entire population is more likely to be affected.</b>  |

**Fig A-16:** The Air Quality Index (AQI) is an index for reporting daily air quality. It tells you how clean or polluted your air is, and what associated health effects might be a concern for you. The AQI focuses on health affects you may experience within a few hours or days after breathing polluted air. EPA calculates the AQI for five major air pollutants regulated by the Clean Air Act: ground-level ozone, particle pollution (also known as particulate matter), carbon monoxide, sulfur dioxide, and nitrogen dioxide. For each of these pollutants, EPA has established national air quality standards to protect public health. Ground-level ozone and airborne particles are the two pollutants that pose the greatest threat to human health in this country. Source: <https://airnow.gov/index.cfm?action=aqibasics.aqi>

**FIGURE A-17**  
**IMPERIAL COUNTY DAILY WEATHER AND AG BURNING INFORMATION**

Imperial County Air Pollution Control District  
Daily Weather and Ag. Burning Information

Date: Wednesday, July 8, 2015

Yesterday's Weather Observations at Imperial Airport (ASOS) FAA/NWS

| LOCAL TIME | TEMP °F | WINDS MILES PER HOUR | VISIBILITY MILES |
|------------|---------|----------------------|------------------|
| 7 AM       | 83      | CALM                 | 10               |
| 8 AM       | 85      | CALM                 | 10               |
| 9 AM       | 88      | WNW 7                | 10               |
| 10 AM      | 91      | VRBL 3               | 10               |
| 11 AM      | 96      | NNW 6                | 10               |
| NOON       | 99      | W 6                  | 10               |
| 1 PM       | 102     | SW 5                 | 10               |
| 2 PM       | 106     | W 7                  | 10               |
| 3 PM       | 107     | SW 5                 | 10               |
| 4 PM       | 108     | W 9                  | 10               |
| 5 PM       | 107     | W 3                  | 10               |
| 6 PM       | 107     | WSW 9                | 10               |
| 7 PM       | 100     | W 14/G23             | 10               |

Max. Temperature yesterday was 108 degrees

Today's Mt. Signal Visibility at 7:30 AM Clear NKX 12Z 500 MB Height \_\_\_\_\_  
1Y7 12Z 500 MB Height \_\_\_\_\_

**Forecasts**

**High Today** 99-104

Local Forecast (Issued 8 AM Local)      Computer Forecast (RUC 40KM 12Z)

|   |                         |                     |
|---|-------------------------|---------------------|
| Est. Time Mixing Height reaches 3000 feet | _____                   | <b>9:00 a.m.</b>    |
| Forecast of Maximum Mixing Height         | _____ feet              | <b>10,500</b> feet  |
| Forecast for Morning surface winds        | <b>W 10-15</b> mph      | <b>W 10-15</b> mph  |
| Forecast for afternoon surface winds      | <b>SW 15-25</b> mph     | <b>SW 15-25</b> mph |
| Forecast for evening surface winds        | <b>W 15-25 G/35</b> mph |                     |
| Forecast 10 AM - 3 PM transport winds     | <b>5-12</b> mph         |                     |

Comments/Complaints: \_\_\_\_\_

Burn Hours 11-3 ARB No Burn Day \_\_\_\_\_ District called No Burn Day \_\_\_\_\_

Total actually burned today \_\_\_\_\_ acres Crops burned \_\_\_\_\_

IMPERIAL COUNTY AIR POLLUTION CONTROL DISTRICT 2011      Int WB

**Fig A-17:** A copy of the Imperial County Air Pollution Control District official record of the conditions as they existed for a determination of a "Burn Day" on July 8, 2015

**FIGURE A-18**  
**IMPERIAL COUNTY AFFIDAVIT 30 DAY PUBLIC NOTICE**

**AFFIDAVIT OF PUBLICATION**  
**(2015.5 C.C.P.)**

**STATE OF CALIFORNIA**

County of Imperial

I am a resident of the County aforesaid; I am over the age of eighteen years, and not a party to or interested in the above entitled matter. I am the principal clerk\* of the printer of the

Imperial Valley Press

a newspaper of general circulation, printed and published daily in the City of El Centro, County of Imperial and which newspaper has been adjudged a newspaper of general circulation by the Superior Court of the County of Imperial, State of California, under the date of October 9, 1951, Case Number 26775; that the notice, of which the annexed is a printed copy, has been published in each regular and entire issue of said newspaper and not in any supplement thereof on the following dates, to-wit:

01/31 .

all in the year 2018

I certify (or declare) under penalty of perjury that the foregoing is true and correct.

  
 SIGNATURE

Name of Account: I C AIR POLLUTION  
 CONTROL  
 Order Number: 11143574  
 Ad Number: 31364715

\* Printer, Foreman of the Printer, or Principal Clerk of the Printer

Date: 31 st day of January, 2018.  
 at El Centro, California.

This space is for the County Clerk's  
 Filing Stamp:

**NOTICE OF AVAILABILITY  
 OF THE DEMONSTRATION OF THE OCCURRENCE  
 OF FOUR EXCEPTIONAL EVENTS (EE)**

The Imperial County Air Pollution Control District (Air District) has prepared four Draft Exceptional Event (EE) Demonstrations, which support the requested exclusion of measured 24-hour concentrations at the Air District air monitoring sites. Listed below by date, site and concentration as measured by a Federal Reference Method monitor (FRM) or with a continuous Federal Equivalent Method monitor (FEM) represent the four Draft EE's.

| 2014                  | 2015                      | 2016                  |
|-----------------------|---------------------------|-----------------------|
| May 20                | May 20                    | May 25                |
| Brawley FEM 250 ug/m3 | Brawley FEM 283 ug/m3     | Brawley FEM 165 ug/m3 |
| July 8                | Calixico FEM 159 ug/m3    |                       |
| Niland FEM 166 ug/m3  | Niland FEM 309 ug/m3      |                       |
|                       | Westmorland FEM 370 ug/m3 |                       |
|                       | Brawley FEM 199 ug/m3     |                       |
|                       | Calixico FEM 228 ug/m3    |                       |
|                       | El Centro FEM 252 ug/m3   |                       |

The public and all interested parties are encouraged to review and comment on the four Draft EE's listed above. These demonstrations provide the supporting evidence that on the days indicated for 2014, 2015 and 2016 Air District air monitors were affected by entrained elevated levels of particulate matter of an aerodynamic size less than 10 microns (PM10). Winds, associated with a weather event entrained PM10 into the region affecting Riverside, Imperial and San Diego counties. The four Draft EE's provide the scientific justification for the requested exclusions. The Air District is soliciting and accepting comments for 30 days commencing the date of the publication of this notice. The final closing date for submitting comments is March 2, 2018 by close of business.

The four Draft EE's for days listed above are available for download at the Air District website at [www.oc.imperial.ca.us](http://www.oc.imperial.ca.us), under "Air Pollution". To view a hard copy of any of the four Draft EE's, please visit the Air Pollution Control District office at 150 S. 9th Street, El Centro. Should you have any questions or concerns please feel free to call our office between 8am and 5pm at (442) 265-1800 and ask for Monica N. Souder.

L733 J31

**RECEIVED**

**FEB 05 2018**

**AIR POLLUTION  
 CONTROL DISTRICT**

**Fig A-18:** A copy of the Imperial County Air Pollution Control District official record (affidavit) affirming the publication of the notice of availability of the Exceptional Events Demonstration for July 8, 2015. The date for closing comments was March 2, 2018

**FIGURE A-19**  
**IMPERIAL COUNTY**  
**COMMENTS REGARDING THE JULY 8, 2015 EE DEMONSTRATION**

The ICAPCD did not receive any comments